



# Interactive Real time Multimedia Applications on Service Oriented Infrastructures

*Objective ICT-2007.1.2: Service and Software  
Architectures, Infrastructures and Engineering*

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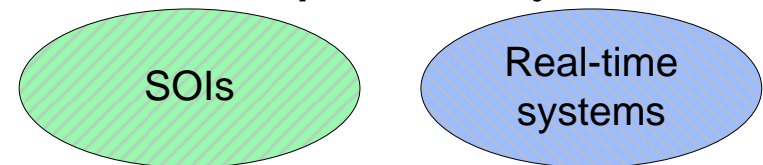
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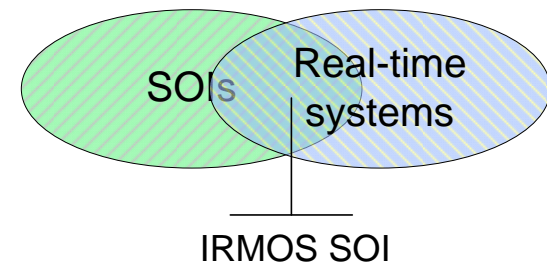
# Problem Statement

- Today's Service Oriented Infrastructures (SOIs) lack Real Time (RT) capabilities.
- The problems:
  - SOIs are not dynamically configurable and adaptable to RT requirements.
  - Timing and interactions issues are not thoroughly studied and formally expressed in SOIs.
  - Web Services lack of RT attributes.
  - Network awareness and control is not integrated in the application services logic.

## *The picture today*

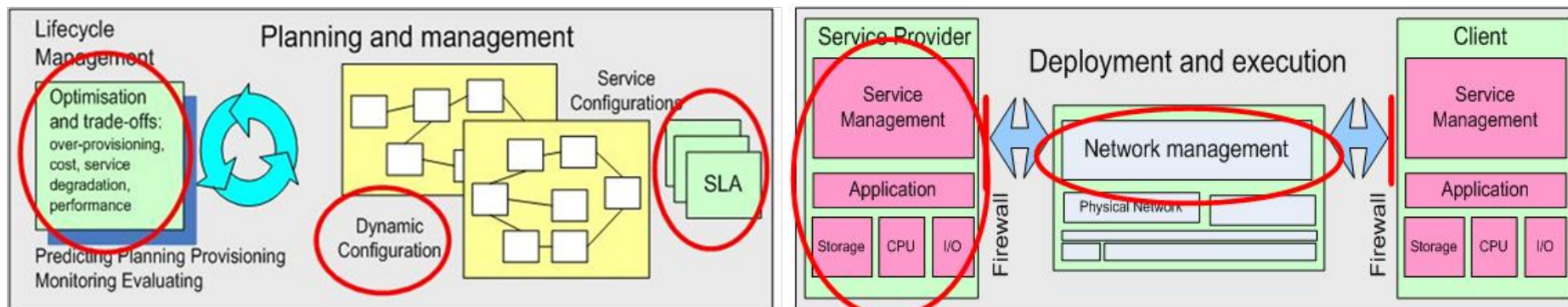
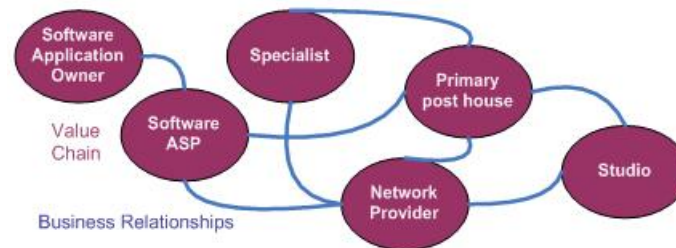


## *The IRMOS effect*



# Main Objective

- Design, develop and validate a **Service Oriented Infrastructure** which will allow the adoption of interactive real-time applications, and especially multimedia applications, enabling their rich set of attributes (from time-constrained operation to dynamic service control and adaptation) and their efficient integration into the infrastructure.



# Innovation Aspects

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- ❑ A **platform of services** that enables **real-time** interaction between people and applications.
- ❑ An **intelligent network infrastructure** that not just manages the network bandwidth, but also takes into account several QoS aspects like delay and jitter, when network paths for a service have to be selected and enables automated SLA negotiation and monitoring.
- ❑ An **integrated optimisation approach** at various levels from inter-organisation business processes and SLAs to intelligent networking and virtualisation techniques that enable real-time interaction and concurrency at all points of value chains that span organisational boundaries.
- ❑ Software tools and associated **modelling environments** to enable real-time interactive applications to be written to target the IRMOS framework.
- ❑ **Specification languages** that unify various parameters and characteristics used to describe real-time applications on SOIs, and allow value chain participants to collaborate in the design, deployment and execution of networks of services.

# End Results

## □ The IRMOS platform

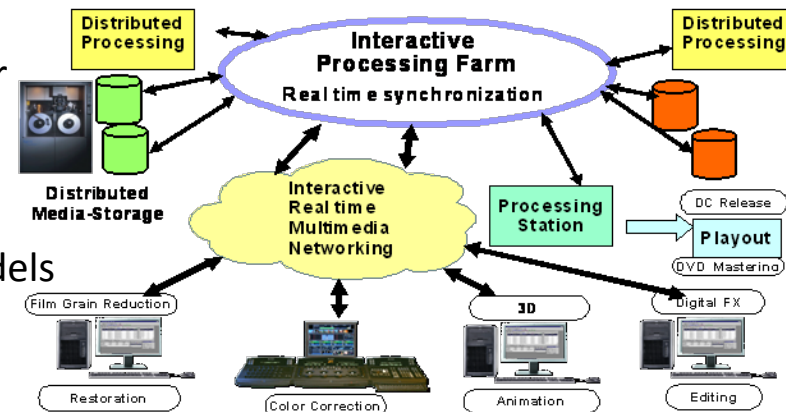
- Facilitates real-time interactive applications over SOIs.
- Spans organizational boundaries.
- Enables new business and technology solutions.
- Motivates SMEs in advancing their business models and gain market accessibility.
- Accompanied by best practices and “how to” documentation.

## □ Demonstration of the IRMOS functionality in three different application areas

- Collaborative Digital Film Postproduction.
- Virtual and Augmented Reality.
- Interactive collaborative e-learning.

## □ Active dissemination through publications, targeted industrial workshops, conferences and active standardization efforts.

## □ Exploitation of the project results in the multimedia sector and beyond with special focus on SMEs.





# Thank you!

## Further Information

<http://www.irmosproject.eu>

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